

UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA  
SAN FRANCISCO DIVISION

ORACLE AMERICA, INC.

Plaintiff,

v.

GOOGLE, INC.

Defendant.

Case No. 3:10-cv-03561-WHA

DECLARATION OF DR. GREGORY K. LEONARD

I, Gregory K. Leonard, declare as follows:

## **I. Qualifications and Assignment**

I understand that the Court has requested suggestions regarding how Dr. Cockburn's "lower bound" approach can be adjusted to account for the Court's recent order and the recent PTO actions regarding patents at issue in this case. In this declaration, I discuss two methods for making such adjustments while retaining the structure of Dr. Cockburn's approach. I also update my own damage calculations to reflect the Court's order and the PTO actions.

## **II. Adjustments to Dr. Cockburn's Approach**

The first method of adjustment I discuss below deducts the value of the unasserted copyrights from the value of the IP bundle, as directed by the Court, updates the apportionment percentages for the two remaining patents-in-suit (the '104 and '520 patents) to account for the fact that they are the only remaining patents-in-suit, and then applies these updated apportionment percentages to the updated value of the IP bundle. This adjustment method is based on the calculations in Exhibit 35 to Dr. Cockburn's report. I also address a second method of adjustment based on the calculations in Exhibit 36 to Dr. Cockburn's report. That adjustment method deducts the value of the unasserted copyrights from the value of the IP bundle, as directed by the Court, and updates the apportionment percentages for the '104 and '520 patents based on the revised value of the IP bundle, and applies the updated apportionment percentages to the updated value of the IP bundle. However, the second adjustment method does not fully update the apportionment percentages for the '104 and '520 patents to account for the fact that they are the only patents remaining in the case.

### **A. Adjustment Method 1**

An adjustment to Dr. Cockburn's approach based on Exhibit 35 to his report consists of the following steps. First, Dr. Cockburn's calculation of the "Apportionment for Patents in Suit" presented in Exhibit 35 of his Third Report can be updated by deducting the value of the unasserted copyrights of \$37 million from the value of the IP bundle, as directed by the Court. Second, with only two patents-in-suit remaining in the case, a number of the underlying calculations of Dr. Cockburn's approach need to be revised. I describe below how that can be done. In doing so, I conform as closely as possible to Dr. Cockburn's original approach as presented in Exhibit 35 of his Third Report.

Under Dr. Cockburn's approach, to determine the value of the patents-in-suit, five relationships are specified. I discuss each relationship in turn, including how it needs to be updated in light of the Court's order and the PTO actions.

#### ***1. Equation for the Value of the Bundle of IP***

The value of the bundle of all patents and asserted copyrights can be written as:

$$560.5 = V_{104} + V_{520} + V_{other\ patents} + V_{asserted\ cr}$$

This equation is the same as that used in Dr. Cockburn's approach, except that it has been updated to deduct the value of the non-asserted copyrights of \$37 million from the value of the IP bundle, as directed by the Court, and it includes only the two remaining patents-in-suit.<sup>1</sup>

## *2. Relationship Between the Value of the '104 Patent and the Value of All Patents*

$$V_{104} = \left(\frac{1}{22} \cdot 0.771\right) V_{all\ patents} = 0.035 V_{all\ patents}$$

This relationship is the same as Dr. Cockburn used, except that it has been updated to account for the fact that the '104 patent is the only remaining patent-in-suit in the top 22 patents.<sup>2</sup> Dr. Cockburn had concluded that the top 22 patents account for 77.1% of the value of all patents and Oracle claims that the '104 patent is among the top 22.<sup>3</sup>

## *3. Relationship Between the Value of the '520 Patent and the Value of the '104 Patent*

$$V_{520} = \frac{3}{75} V_{104}$$

When he allocated the value of the entire bundle of six patents-in-suit among the individual patents-in-suit, Dr. Cockburn assigned the '104 patent an allocation percentage of 75% and the '520 patent an allocation percentage of 3%.<sup>4</sup> Using the same methodology Dr. Cockburn used in his Third Report to determine the value of the '702, '520, and '476 patents based on the value of Oracle's top patents (the '104, '205, and '720 patents), I determine that the value of the '520 patent is 3/75 of the value of the '104 patent.<sup>5</sup>

## *4. Relationship Between the Value of All Patents, the Value of the '104 Patent, the Value of the '520 Patent, and the Value of Other Patents*

$$V_{all\ patents} = V_{104} + V_{520} + V_{other\ patents}$$

This relationship breaks the value of all patents down into the values for the '104 patent, the '520 patent, and all other patents. Dr. Cockburn used a similar relationship in his approach.

<sup>1</sup> Third Cockburn Report, p. 154, ¶414.

<sup>2</sup> One could use 20 instead of 22 in this formula because the PTO has rejected two of the patents that Oracle claims were among the top 22 patents. In that case, one would also need to adjust the 77.1% downward because it should then reflect the percentage of value due to the top 20 patents instead of the top 22 patents. However, it is not straightforward to calculate the latter adjustment from the figures contained in Dr. Cockburn's Third Report. Additional calculations would be needed. Thus, the adjustment I propose is based on using 22 and 77.1% in the formula. The overall effect on the damage calculation of using 20 and the corresponding percentage of value figure would be small.

<sup>3</sup> Third Cockburn Report, Exhibits 33 and 34.

<sup>4</sup> Third Cockburn Report, Exhibit 36, "Individual Patent Apportionment Ratio."

<sup>5</sup> Third Cockburn Report, Exhibit 35, footnote [6].

### 5. Value of the Asserted Copyrights

$$V_{\text{asserted cr}} = 32.6$$

Dr. Cockburn previously assumed that the value of the asserted copyrights was 50% of the value of the six asserted patents. This resulted in a value for the asserted copyrights of \$34.7 million.<sup>6</sup> I have updated Dr. Cockburn's calculation of the value of the asserted copyrights by deducting the value of the non-asserted copyrights of \$37 million from the value of the IP bundle, as directed by the Court. This results in an updated value for the asserted copyrights of \$32.6 million.

### 6. Solving for the Values of the Patents-in-Suit Using the Five Relationships

The five relationships above can be solved for the value of the '104 patent, and then this value can be used to solve for the value of the '520 patent. First, relationships (2)-(5) are substituted into the equation for the value of the bundle relationship (1), which yields:

$$560.5 = V_{104} + \frac{3}{75} V_{104} + \left( \frac{1 - 0.035}{0.035} - \frac{3}{75} \right) V_{104} + 32.6$$

This equation can be solved for the value of the '104 patent,  $V_{104}$ :

$$V_{104} = \frac{560.5 - 32.6}{1 + \frac{1 - 0.035}{0.035}} = 18.5 \text{ million}$$

With this in hand, the value of the '520 patent can be calculated as:

$$V_{520} = \frac{3}{75} V_{104} = \frac{3}{75} 18.5 = 0.7 \text{ million}$$

These calculations are summarized in the attached Leonard 3/19/2012 Declaration Exhibit 1.

### A. Adjustment Method 2

The second method of adjusting Dr. Cockburn's approach consists of the following steps. First, as with adjustment method 1 above, Dr. Cockburn's calculation of the "Apportionment for Patents in Suit" presented in Exhibit 35 of his Third Report is updated by deducting the value of the unasserted copyrights of \$37 million from the value of the IP bundle, as directed by the

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<sup>6</sup> Third Cockburn Report, Exhibit 35, "Value of Copyrights" under the "PatVal (2005), Lower Bound" scenario.

Court. This results in an updated percentage for the “Apportionment for [the six] Patents in Suit” of 9.532%. Second, the “Individual Patent Apportionment Ratios” that Dr. Cockburn assigned to the ‘104 and ‘520 patents presented in Exhibit 36 of his Third Report of 75% and 3%, respectively, can be applied to allocate portions of the 9.532% (which is for six patents) to the ‘104 and ‘520 patents. This yields apportionment percentages for the ‘104 and ‘520 patents of 7.149% and 0.286%, respectively, for a total of 7.435%. Finally, this 7.435% can be multiplied by the “Total Unapportioned Value” of \$683.7 million to arrive at a value for the ‘104 and ‘520 patents of \$50.8 million.

This method of adjustment does not fully account for the fact that there are now only two rather than six patents-in-suit remaining because the 9.532% figure is based on the six patents that were originally in suit. Only adjustment method 1, described above, accounts fully for the fact that the ‘104 and ‘520 patents are the only remaining patents-in-suit.

### **B. Accounting for Geography, Marking, and Accused Products**

Dr. Cockburn made certain adjustments to his damages figures to account for geographic area, marking, and accused products. The same percentage adjustments can be applied to the figures derived above.

### **C. Summary**

After adjusting for the Court’s order and the PTO actions,

- Dr. Cockburn’s copyright damages are updated to be \$32.6 million.
- Using the first method of adjustment described above, Dr. Cockburn’s patent damages are updated to be as follows:
  - For both patents-in-suit, \$19.2 million before any adjustments for geography, marking, and accused models; \$18.9 million using Dr. Cockburn’s US adjustment; \$18.2 million using Dr. Cockburn’s US and marking adjustments; and \$4.9 million using Dr. Cockburn’s US, marking, and accused model adjustments.
  - For the ‘104 patent only, \$18.5 million before any adjustments for geography, marking, and accused models; \$18.2 million using Dr. Cockburn’s US adjustment; \$17.5 million using Dr. Cockburn’s US and marking adjustments; and \$4.7 million using Dr. Cockburn’s US, marking, and accused model adjustments.
  - For the ‘520 patent only, \$0.74 million before any adjustments for geography, marking, and accused models; \$0.73 million using Dr. Cockburn’s US adjustment; \$0.70 million using Dr. Cockburn’s US and marking adjustments; and \$0.19 million using Dr. Cockburn’s US, marking, and accused model adjustments.
- Using the second method of adjustment described above, Dr. Cockburn’s patent damages are updated to be as follows:

- For both patents-in-suit, \$50.8 million before any adjustments for geography, marking, and accused models; 50.0 million using Dr. Cockburn's US adjustment; \$48.1 million using Dr. Cockburn's US and marking adjustments; and \$12.9 million using Dr. Cockburn's US, marking, and accused model adjustments.
- For the '104 patent only, \$48.9 million before any adjustments for geography, marking, and accused models; \$48.0 million using Dr. Cockburn's US adjustment; \$46.2 million using Dr. Cockburn's US and marking adjustments; and \$12.5 million using Dr. Cockburn's US, marking, and accused model adjustments.
- For the '520 patent only, \$1.96 million before any adjustments for geography, marking, and accused models; \$1.92 million using Dr. Cockburn's US adjustment; \$1.85 million using Dr. Cockburn's US and marking adjustments; and \$0.50 million using Dr. Cockburn's US, marking, and accused model adjustments.

### III. Updating My Damage Calculations

I have also updated my damage calculations to reflect the Court's order and the PTO's actions. The only aspect of my calculations that needs to be changed is the apportionment factor; the other aspects of the calculations remain unchanged. The revised calculations are presented in the attached Revised Exhibits 2 and 3. To summarize, I calculate damages as follows:

Based on the Google-Sun Negotiation<sup>7</sup>

<u>Apportionment %</u>	<u>Damages (All Models)</u>
2.8%	\$1.7m
7.4%	\$4.5m

Based on the Danger and OEM Licenses

<u>Apportionment %</u>	<u>Damages- All Models</u>	<u>Damages-Only Accused Models</u>	<u>Damages-Only Accused Models After 7/10/2010</u>
2.8%	\$3.6m	\$1.6m	\$1.3m
7.4%	\$8.4m	\$2.9m	\$2.2m

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<sup>7</sup> As noted in my original expert report (fn. 240), the damage figures based on the Google-Sun negotiation could be adjusted downward because (1) only certain Android models are accused, (2) the lump sum payment covered a time period longer than the damage period, and (3) Google has alleged that Sun/Oracle failed to mark.

I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed on March 19, 2012

/s/ Gregory K. Leonard  
Gregory K. Leonard

I, Daniel Purcell, as the ECF user and filer of this document, attest that concurrence in the filing of this document has been obtained from each of the above signatories.

Dated: March 19, 2012

KEKER & VAN NEST LLP

By: /s/ Daniel Purcell  
Daniel Purcell

Attorneys for Defendant  
GOOGLE INC.

## Leonard 3/19/2012 Declaration Exhibit 1

**Revisions To Cockburn's Exhibit 35 Based On The Order Granting In Part And Denying In Part Google's  
Daubert Motion To Exclude Dr. Cockburn's Third Report Patval (2005) Lower Bound -  
Revised Calculation With Unasserted Copyrights Adjustment**

			<u>Amount</u>
(a)		Total Unapportioned Value	\$ 683.7
(b)		Engineering Support Value	\$ 86.2
(c)	(a)-(b)	<b>Total Value of IP</b>	<b>\$ 597.5</b>
(d)		Unasserted Copyrights Adjustment <sup>1</sup>	\$ 37.0
(e)	(c)-(d)	<b>Adjusted Total Value of IP</b>	<b>\$ 560.5</b>
(f)		Top Patents Share of Patent Value <sup>2</sup>	3.5 %
(g)		Value of Copyrights <sup>3</sup>	\$ 32.6
(h)	((e)-(g))/(1+(1-(f))/(f)))	Value of Patent '104	\$ 18.5
(i)	(h)*(1+(3/75))	Value of Patents '104 and '520 <sup>4</sup>	\$ 19.2
(j)	(i)*(68.3/69.5)	After US Adjustment <sup>5</sup>	18.9
(k)	(i)*(65.7/69.5)	After US and Marking Adjustment <sup>5</sup>	18.2
(l)	(i)*(17.7/69.5)	After US, Marking, and Accused Devices Adjustment <sup>5</sup>	4.9
(m)	(e)-(g)-(i)	Value of Java Patents not in Suit	\$ 508.7
(n)	(e)-(g)-(j)	After US Adjustment	\$ 509.0
(o)	(e)-(g)-(k)	After US and Marking Adjustment	\$ 509.8
(p)	(e)-(g)-(l)	After US, Marking, and Accused Devices Adjustment	\$ 523.1
(q)	(i)/(a)	Apportionment for Patents in Suit	2.8 %
(r)	(j)/(a)	After US Adjustment	2.8 %
(s)	(k)/(a)	After US and Marking Adjustment	2.7 %
(t)	(l)/(a)	After US, Marking, and Accused Devices Adjustment	0.7 %
(u)	(g)/(a)	Apportionment for Copyrights	4.8 %

Notes: All dollar amounts are in millions.

<sup>1</sup> See Order Granting In Part and Denying In Part Google's *Daubert* Motion to Exclude Dr. Cockburn's Third Report.

<sup>2</sup> See Cockburn February 3, 2012 Report, Exhibit 34a Backup.

I take (1/22) of Cockburn's 77.1% estimated value for the top 22 of 569 patents. I understand that Patents '205 and 720 are no longer asserted and Patent '104 is the only patent-in-suit that is in the top 22.

<sup>3</sup> See Leonard 3/19/2012 Declaration, Order Granting in Part and Denying in Part Google's Daubert Motion to Exclude Dr. Cockburn's Third Report, and Cockburn February 3, 2012 Report, Exhibit 35.

The \$32.6M "Value of Copyrights" follows from Cockburn methodology in his Exhibit 35 after adjusting the "Total Value of IP" by \$37M, as ordered by the court.

<sup>4</sup> See Cockburn February 3, 2012 Report, Exhibit 36.

The 3% and 75% numbers are taken directly from Cockburn's assessment of the "Independent Apportionment Ratio" for Patents '520 and '104, respectively.

<sup>5</sup> See Cockburn February 3, 2012 Report, ¶ 5.

I determine these adjustment ratios by using Cockburn's lower-bound estimates after each adjustment (Items 5, 6, and 7 in the table) divided by Cockburn's estimated value of the patents-in-suit (Item 4 in the table).

Source: Order Granting In Part and Denying In Part Google's Daubert Motion to Exclude Dr. Cockburn's Third Report. Cockburn February 3, 2012 Report and Exhibits.



**Revised Exhibit 2**  
**Project Armstrong Expected Profit Adjustments**  
**Reflects Patent Apportionment of 2.8%**

		<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>Total</u> <u>2007 - 2011</u>
		(1)	(2)	(3)	(4)	(5)	(6)
(a)	Expected Revenue (Sun's projections)	\$ 0	\$ 0	\$ 1,400,000	\$ 153,100,000	\$ 462,600,000	\$ 617,100,000
(b)	Adjusted Expected Revenue (based on Android shipments) <sup>1</sup>	0	0	631,692	69,079,980	208,728,927	278,440,599
(c)	Adjusted Expected Revenue (based on Red Hat share) <sup>2</sup>	0	0	331,407	36,241,743	109,506,402	146,079,552
(d)	COGS <sup>3</sup>	\$ 0	\$ 500,000	\$ 260,391	\$ 5,610,250	\$ 8,190,492	\$ 14,561,133
(e)	Operating Costs <sup>4</sup>	\$ 0	\$ 7,650,000	\$ 5,562,906	\$ 6,509,784	\$ 6,509,784	\$ 26,232,474
(f)	Expected Operating Profit	(c)-(d)-(e) \$ 0	\$ -8,150,000	\$ -5,491,890	\$ 24,121,709	\$ 94,806,127	\$ 105,285,945
(g)	Expected Operating Profit after Patent Apportionment	(f) * 2.8% \$ 0	\$ -228,200	\$ -153,773	\$ 675,408	\$ 2,654,572	\$ 2,948,006
(h)	Discount Period	1.50	2.50	3.50	4.50	5.50	
(i)	Discount Factor	1/(1+15%)^(h) 0.81	0.71	0.61	0.53	0.46	
(j)	NPV of Expected Operating Profit	(f) * (i) \$ 0	\$ -5,746,627	\$ -3,367,282	\$ 12,860,794	\$ 43,953,988	
(k)	<b>Total NPV of Expected Operating Profit</b>	<b>Σ(j) \$ 47,700,873</b>					
(l)	<b>Total NPV of Expected Operating Profit after Patent Apportionment</b>	<b>(k) * 2.8% \$ 1,335,624</b>					

Sources: "Project Armstrong: Business Model," February 2006, OAGOOGL0100166874 at 883 and 884.

"Global Smartphone Sales Forecast by Operating System and Region," Strategy Analytics, January 2011.

"Gartner Says Worldwide Operating System Software Market Grew to \$30.4 Billion in 2010," Gartner, April 27, 2011, <http://www.gartner.com/it/page.jsp?id=1654914>.

"IDC: Linux Market to top \$1B in 2012, but Red Hat to face more competition," Triangle Business Journal, August 28, 2009, <http://www.bizjournals.com/triangle/stories/2009/08/24/daily63.html>.

Notes: According to Dr. Cockburn, the expected Armstrong revenues start in late 2008 to correspond to actual Android sales.

The expected operating profit is discounted to the date of the hypothetical negotiation, January 1, 2006 using a 15% annual discount rate.

<sup>1</sup> Row (b) calculated by multiplying row (a) by 45%. The 45% is calculated by adjusting the FY2009 volume in OAGOOGL0100166874 at 883 to projected 2011 Android shipments from Strategy Analytics Report.

<sup>2</sup> Row (c) calculated by adjusting proportionally Sun's expected share based on Red Hat's 33% share in total linux server market.

<sup>3</sup> 2009-2011 COGS estimated by taking COGS as a percent of Expected Revenue from Sun's projections.

<sup>4</sup> 2009-2011 operating costs estimated by taking operating costs as a percent of Expected Revenue from Sun's projections.

**Revised Exhibit 2**  
**Project Armstrong Expected Profit Adjustments**  
**Reflects Patent Apportionment of 7.4%**

		<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>Total</b>
		<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>2007 - 2011</b>
							<b>(6)</b>
(a)	Expected Revenue (Sun's projections)	\$ 0	\$ 0	\$ 1,400,000	\$ 153,100,000	\$ 462,600,000	\$ 617,100,000
(b)	Adjusted Expected Revenue (based on Android shipments) <sup>1</sup>	0	0	631,692	69,079,980	208,728,927	278,440,599
(c)	Adjusted Expected Revenue (based on Red Hat share) <sup>2</sup>	0	0	331,407	36,241,743	109,506,402	146,079,552
(d)	COGS <sup>3</sup>	\$ 0	\$ 500,000	\$ 260,391	\$ 5,610,250	\$ 8,190,492	\$ 14,561,133
(e)	Operating Costs <sup>4</sup>	\$ 0	\$ 7,650,000	\$ 5,562,906	\$ 6,509,784	\$ 6,509,784	\$ 26,232,474
(f)	Expected Operating Profit	(c)-(d)-(e) \$ 0	\$ -8,150,000	\$ -5,491,890	\$ 24,121,709	\$ 94,806,127	\$ 105,285,945
(g)	Expected Operating Profit after Patent Apportionment	(f) * 7.4% \$ 0	\$ -603,100	\$ -406,400	\$ 1,785,006	\$ 7,015,653	\$ 7,791,160
(h)	Discount Period	1.50	2.50	3.50	4.50	5.50	
(i)	Discount Factor	1/(1+15%)^(h) 0.81	0.71	0.61	0.53	0.46	
(j)	NPV of Expected Operating Profit	(f) * (i) \$ 0	\$ -5,746,627	\$ -3,367,282	\$ 12,860,794	\$ 43,953,988	
(k)	<b>Total NPV of Expected Operating Profit</b>	<b>Σ(j) \$ 47,700,873</b>					
(l)	<b>Total NPV of Expected Operating Profit after Patent Apportionment</b>	<b>(k) * 7.4% \$ 3,529,865</b>					

Sources: "Project Armstrong: Business Model," February 2006, OAGOOGL0100166874 at 883 and 884.

"Global Smartphone Sales Forecast by Operating System and Region," Strategy Analytics, January 2011.

"Gartner Says Worldwide Operating System Software Market Grew to \$30.4 Billion in 2010," Gartner, April 27, 2011, <http://www.gartner.com/it/page.jsp?id=1654914>.

"IDC: Linux Market to top \$1B in 2012, but Red Hat to face more competition," Triangle Business Journal, August 28, 2009, <http://www.bizjournals.com/triangle/stories/2009/08/24/daily63.html>.

Notes: According to Dr. Cockburn, the expected Armstrong revenues start in late 2008 to correspond to actual Android sales.

The expected operating profit is discounted to the date of the hypothetical negotiation, January 1, 2006 using a 15% annual discount rate.

<sup>1</sup> Row (b) calculated by multiplying row (a) by 45%. The 45% is calculated by adjusting the FY2009 volume in OAGOOGL0100166874 at 883 to projected 2011 Android shipments from Strategy Analytics Report.

<sup>2</sup> Row (c) calculated by adjusting proportionally Sun's expected share based on Red Hat's 33% share in total linux server market.

<sup>3</sup> 2009-2011 COGS estimated by taking COGS as a percent of Expected Revenue from Sun's projections.

<sup>4</sup> 2009-2011 operating costs estimated by taking operating costs as a percent of Expected Revenue from Sun's projections.

**Revised Exhibit 3a**  
**Royalties**  
**Danger's and Handset Manufacturers' Java ME Licenses**  
**Using Updated Apportionment Percentage from Method of Adjustment 1<sup>1</sup>**  
**January 2008 - September 2011**

<b>Scenario 1</b>									
<b>Royalty</b> <b>(1)</b>	<b>Sales of All Models of Android (U.S.)</b>			<b>Sales of Accused Models Only</b>			<b>Sales of Accused Models Only (After July 20, 2010)</b>		
	<b>Units</b> <b>(2)</b>	<b>Royalties</b> <b>(3)</b>	<b>Apportionment<sup>1</sup></b> <b>(4)</b>	<b>Units</b> <b>(5)</b>	<b>Royalties</b> <b>(6)</b>	<b>Apportionment<sup>1</sup></b> <b>(7)</b>	<b>Units</b> <b>(8)</b>	<b>Royalties</b> <b>(9)</b>	<b>Apportionment<sup>1</sup></b> <b>(10)</b>
Danger Royalty (Scenario 1) <sup>2</sup>	77,028,772	\$ 30,717,282	\$ 1,710,056	17,329,883	\$ 10,112,855	\$ 1,049,956	12,036,615	\$ 6,682,856	\$ 940,070
OEM Royalty <sup>3</sup>	77,028,772	30,262,687	969,520	17,329,883	7,222,442	231,384	12,036,615	5,619,966	180,046
<b>Total:</b>		<b>\$ 60,979,969</b>	<b>\$ 2,679,576</b>		<b>\$ 17,335,297</b>	<b>\$ 1,281,340</b>		<b>\$ 12,302,822</b>	<b>\$ 1,120,116</b>

<b>Scenario 2 (Danger Royalty Doubled)</b>									
<b>Royalty</b> <b>(1)</b>	<b>Sales of All Models of Android (U.S.)</b>			<b>Sales of Accused Models Only</b>			<b>Sales of Accused Models Only (After July 20, 2010)</b>		
	<b>Units</b> <b>(2)</b>	<b>Royalties</b> <b>(3)</b>	<b>Apportionment<sup>1</sup></b> <b>(4)</b>	<b>Units</b> <b>(5)</b>	<b>Royalties</b> <b>(6)</b>	<b>Apportionment<sup>1</sup></b> <b>(7)</b>	<b>Units</b> <b>(8)</b>	<b>Royalties</b> <b>(9)</b>	<b>Apportionment<sup>1</sup></b> <b>(10)</b>
Danger Royalty (Scenario 2) <sup>4</sup>	77,028,772	\$ 60,684,564	\$ 2,670,113	17,329,883	\$ 19,475,710	\$ 1,349,912	12,036,615	\$ 12,615,712	\$ 1,130,140
OEM Royalty <sup>3</sup>	77,028,772	30,262,687	969,520	17,329,883	7,222,442	231,384	12,036,615	5,619,966	180,046
<b>Total:</b>		<b>\$ 90,947,251</b>	<b>\$ 3,639,633</b>		<b>\$ 26,698,152</b>	<b>\$ 1,581,296</b>		<b>\$ 18,235,678</b>	<b>\$ 1,310,185</b>

**Sources:** Sales of All Models of Android (U.S.) from "Worldwide Quarterly Mobile Phone Tracker, 2Q 2011 Final & Forecast Data Cuts - NERA," IDC Research, Inc., September 8, 2011.  
Sales of Accused Models Only from Google's Activation Data for Accused Models, received from the client on September 29, 2011.  
Sun/Oracle Java ME Licensing Agreements.

**Notes:**

<sup>1</sup> I use the updated apportionment percentage of 2.8% with an upward adjustment to account for technical and engineering support.

See Leonard 3/19/2012 Declaration, Exhibit 1, Order Granting in Part and Denying in Part Google's Daubert Motion to Exclude Dr. Cockburn's Third Report, and Cockburn February 3, 2012 Report, Exhibit 35.

<sup>2</sup> See Leonard October 3, 2011 Report, Exhibit 3b.1.

<sup>3</sup> See Leonard October 3, 2011 Report, Exhibit 3c.

<sup>4</sup> See Leonard October 3, 2011 Report, Exhibit 3b.2.

**Revised Exhibit 3a**  
**Royalties**  
**Danger's and Handset Manufacturers' Java ME Licenses**  
**Using Updated Apportionment Percentage from Method of Adjustment 2<sup>1</sup>**  
**January 2008 - September 2011**

<b>Scenario 1</b>									
<b>Royalty</b> <b>(1)</b>	<b>Sales of All Models of Android (U.S.)</b>			<b>Sales of Accused Models Only</b>			<b>Sales of Accused Models Only (After July 20, 2010)</b>		
	<b>Units</b> <b>(2)</b>	<b>Royalties</b> <b>(3)</b>	<b>Apportionment<sup>1</sup></b> <b>(4)</b>	<b>Units</b> <b>(5)</b>	<b>Royalties</b> <b>(6)</b>	<b>Apportionment<sup>1</sup></b> <b>(7)</b>	<b>Units</b> <b>(8)</b>	<b>Royalties</b> <b>(9)</b>	<b>Apportionment<sup>1</sup></b> <b>(10)</b>
Danger Royalty (Scenario 1) <sup>2</sup>	77,028,772	\$ 30,717,282	\$ 3,287,292	17,329,883	\$ 10,112,855	\$ 1,542,741	12,036,615	\$ 6,682,856	\$ 1,252,327
OEM Royalty <sup>3</sup>	77,028,772	30,262,687	2,562,303	17,329,883	7,222,442	611,515	12,036,615	5,619,966	475,835
<b>Total:</b>		<b>\$ 60,979,969</b>	<b>\$ 5,849,595</b>		<b>\$ 17,335,297</b>	<b>\$ 2,154,256</b>		<b>\$ 12,302,822</b>	<b>\$ 1,728,163</b>

<b>Scenario 2 (Danger Royalty Doubled)</b>									
<b>Royalty</b> <b>(1)</b>	<b>Sales of All Models of Android (U.S.)</b>			<b>Sales of Accused Models Only</b>			<b>Sales of Accused Models Only (After July 20, 2010)</b>		
	<b>Units</b> <b>(2)</b>	<b>Royalties</b> <b>(3)</b>	<b>Apportionment<sup>1</sup></b> <b>(4)</b>	<b>Units</b> <b>(5)</b>	<b>Royalties</b> <b>(6)</b>	<b>Apportionment<sup>1</sup></b> <b>(7)</b>	<b>Units</b> <b>(8)</b>	<b>Royalties</b> <b>(9)</b>	<b>Apportionment<sup>1</sup></b> <b>(10)</b>
Danger Royalty (Scenario 2) <sup>4</sup>	77,028,772	\$ 60,684,564	\$ 5,824,583	17,329,883	\$ 19,475,710	\$ 2,335,482	12,036,615	\$ 12,615,712	\$ 1,754,655
OEM Royalty <sup>3</sup>	77,028,772	30,262,687	2,562,303	17,329,883	7,222,442	611,515	12,036,615	5,619,966	475,835
<b>Total:</b>		<b>\$ 90,947,251</b>	<b>\$ 8,386,887</b>		<b>\$ 26,698,152</b>	<b>\$ 2,946,997</b>		<b>\$ 18,235,678</b>	<b>\$ 2,230,490</b>

**Sources:** Sales of All Models of Android (U.S.) from "Worldwide Quarterly Mobile Phone Tracker, 2Q 2011 Final & Forecast Data Cuts - NERA," IDC Research, Inc., September 8, 2011.  
Sales of Accused Models Only from Google's Activation Data for Accused Models, received from the client on September 29, 2011.  
Sun/Oracle Java ME Licensing Agreements.

**Notes:**

<sup>1</sup> I use the updated apportionment percentage of 7.4% with an upward adjustment to account for technical and engineering support.

See Leonard 3/19/2012 Declaration, Exhibit 1, Order Granting in Part and Denying in Part Google's Daubert Motion to Exclude Dr. Cockburn's Third Report, and Cockburn February 3, 2012 Report, Exhibit 35.

<sup>2</sup> See Leonard October 3, 2011 Report, Exhibit 3b.1.

<sup>3</sup> See Leonard October 3, 2011 Report, Exhibit 3c.

<sup>4</sup> See Leonard October 3, 2011 Report, Exhibit 3b.2.